

MINUTES OF DOT-AGC BRIDGE DESIGN SUBCOMMITTEE MEETING

The DOT-AGC Joint Bridge Design Subcommittee met on April 11th, 2006. Those in attendance were:

Berry Jenkins	Manager of Highway Heavy Division, Carolinas Branch AGC (Co-Chairman)
Greg Perfetti	State Bridge Design Engineer (Co-Chairman)
Allen Raynor	Asst. State Bridge Design Engineer
Mark Lively	Crowder Construction
John Herrin	Taylor & Murphy Construction Co.
Randall Gattis	Sanford Contractors, Inc.
Kenny Boggs	Carolinas AGC
Ellis Powell	State Construction Engineer
Ron Hancock	State Bridge Construction Engineer
Tom Koch	Structure Design Project Engineer
Paul Lambert	Structure Design Engineer
Scott Hidden	Support Services Supervisor - Geotech. Eng. Unit
Gichuru Muchane	Structure Design Engineer

During the review of the February 8th, 2006 meeting minutes, the following items were discussed:

1. Lump Sum Projects

Mr. Hancock inquired if contractors had any additional comments on lump sum projects. The contractors reiterated their preference for the Bridge Maintenance model for lump sum projects with separate payment for a few items. Mr. Hancock noted that the Department is interested in keeping track of the cost of pay items, which is difficult to achieve with lump sum projects.

The minutes of the February 8th, 2006 meeting were approved.

The following items of new business were discussed:

1. Alternate Crane Certification Programs

Mr. Boggs of the Carolinas AGC was introduced by Mr. Jenkins. Mr. Boggs is involved in the Carolinas AGC crane safety certification program. He noted that the Carolinas AGC crane safety program includes the following:

- Classes and training in North and South Carolina,
- Instructors from other states, such as Florida,
- Flexible scheduling, offering classes more frequently during the winter months and on an as-needed basis during the busy construction season.

Mr. Boggs stated that the Carolinas AGC will be conducting a survey to update contractors' crane safety training needs.

Mr. Boggs next provided some suggested minimal qualifications for the Department to consider when reviewing proposed alternate crane safety certification programs.

Mr. Hancock inquired of the status of OSHA's rule making for crane safety. He added that when the OSHA rule making is finalized, there would no longer be a need for the Department to have specific crane safety guidelines. Mr. Boggs noted that OSHA would be providing an update in September or December. However, since OSHA is currently studying the impact of the crane

safety rules on small and disadvantaged businesses, he expects the final rules to be published in 2-3 years.

2. *Pile Tonnage*

Mr. Hancock provided an update on the Department's proposed increased pile tonnages. He stated that he had sent out an email to all contractors, which summarized the anticipated effect of the increased tonnage for HP 12x53 piles on pile hammers by energy range. He added that he had received approximately a dozen responses to the email. Contractor feedback included:

- Driveability concerns for the higher tonnage piles, especially as it relates to overstressing the piles.
- Reiterating that they were comfortable with the increased pile tonnages as long as the Delmag D19 or similar energy pile hammers could drive the piles.
- Suggesting that the Department rate all hammers for a specific energy range,
- Suggesting that the Department provide a spot check of hammers before contractors make the capital investment for a new hammer.

Mr. Hancock also noted that the Department uses several different types of piles driven to varying tonnages, and therefore the increased tonnage piles would not apply to all sites.

Mr. Jenkins suggested that the Department evaluate the savings that will result from using higher tonnage piles, and to establish guidelines for when it is cost-effective to use higher tonnage piles in lieu of additional lower tonnage piles.

Contractors also suggested having the option to demonstrate, at their expense, that the required pile tonnage has been achieved via a PDA test in lieu of providing a larger hammer.

Mr. Hidden stated that the Department would explore the possibility of letting a few trial projects with the higher tonnage piles.

3. *Use of Debris from Demolished Bridges and Overpasses*

Mr. Koch informed the committee that the new highway transportation bill, known as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), contained a little known provision that requires debris from demolished bridges and overpasses to be made available for "beneficial use" by a Federal, State, or local Government agency.

The bill also includes the following information:

- Defines "beneficial use" as the application of the debris for purposes of shore erosion control or stabilization, ecosystem restoration, and marine habitat creation.
- Requires the receiving party to bear the additional cost associated with having the debris made available.
- Requires the receiving party to assume all future legal responsibility arising from the placement of the debris, which may include entering into an agreement to hold the owner of the demolished bridge or overpass harmless in any liability action.

However, the bill does not address how the materials shall be made available. Mr. Koch noted that:

- States have some flexibility in complying with the bill,
- The Department would like to keep the process simple, and is now considering options for notifying agencies when debris materials are available.

Mr. Hancock added that one option is to construct a web site similar to the web site the Bridge Maintenance Unit uses to advertise availability of old truss bridges to the Project Development and Environmental Analysis (PDEA) Unit. He noted that there would be several issues that will need to be addressed, such as how to handle hazardous materials. Whatever the final procedure is, any third party agreements will need to be in place prior to awarding a contract, and the contract must clearly identify the Contractor's responsibility.

4. *Standard Overhang Falsework Sheets and Submittal Forms*

Mr. Koch informed the committee that the Standard Overhang Falsework sheets are now available on Structure Design's web site. The web site also includes an overview on how to use the sheets, a design example, and the overhang bracket summary form, which is required for submittal.

5. *Revisions to the Policy on Concrete Overlays*

Mr. Muchane discussed a recent update to the policy on bridge overlays. He highlighted the following revisions:

- Concrete overlays shall be reinforced with #3 bars spaced at 6" in both the transverse and longitudinal directions.
- Structure Design will include a full bill of materials for concrete overlays in the plans,
- Where possible, a flat-faced barrier rail shall be detailed when through the rail drainage is required.

6. *Next Meeting*

The next meeting is scheduled for June 14th, 2006 in the Structure Design Conference Room C.